

Interferometry for Optical Astronomy II (AS05)

Part of SPIE's International Symposium on Astronomical Telescopes and Instrumentation
22–28 August 2002 • Hilton Waikoloa Village Hotel • Waikoloa, Hawaii

Conference Chair: **Wesley A. Traub**, Harvard-Smithsonian Ctr. for Astrophysics

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Spatial interferometry is the premier technique for studying astrophysical sources on small angular scales. This conference features all aspects of the theory and practice of ground-based, visible-infrared astronomical interferometry. We expect many exciting results in ground-based interferometry to be reported at this meeting: several major interferometers recently have come on line; innovative technical methods and scientific results are flowing from existing interferometers; high-accuracy and high-dynamic-range observations are emerging; ideas are percolating for the next generation of ground-based interferometers.

Our meeting will include brief updates on all major interferometer projects worldwide; reports on progress in new techniques for interferometry; reviews of the science areas of major interest to interferometrists, including supergiant surface imaging, Mira oscillations, binary stars, and young stellar objects; presentations from PhD students and recent PhDs whose thesis topics have a strong interferometric component.

We seek speakers who are passionate about the scientific exploitation of interferometry; posters which rivet passersby; attendees who really want to know how to apply interferometry to their astrophysical studies.

We solicit contributed papers and posters in these and related areas:

- Recent astrophysical observations with interferometry, including: early and late stages of stellar evolution; accretion disks, dust shells; YSO, T Tauri, Herbig AeBe stars; Mira and Cepheid diameters vs time; stellar diameters vs wavelength; stellar surface features
- New technical innovations in interferometry, including guided optics (fibers and integrated); large-diameter telescope interferometers; phase-referencing on field stars
- PhD thesis research using interferometry: works in progress; newly completed theses
- High-precision techniques in interferometry, including spatial filtering; adaptive optics; differential phase; nulling
- Advances in interferometric methods, including phase-closure; imaging with sparse apertures; calibration; detectors for interferometry; multibeam free-space combination

- Atmospheric effects critical to interferometry
- Progress in computation for interferometry, including data analysis; modeling; image reconstruction
- The future of ground-based interferometry 2003-2013: expansion of existing facilities; plans for future facilities; science, sites, technology, funding

Invited talks on instrumentation and science include the following:

- Short status reports on major groundbased interferometer projects: CHARA (Theo ten Brummelaar); COAST (Chris Haniff); GI2T (Denis Mourard); IOTA (Wesley Traub); ISI (William Danchi); Keck Interferometer (Mark Colavita); MIRA (Jun Nishikawa); NPOI (David Mozurkewich); PTI (Benjamin Lane); SUSI (William Tango); VLTi (Andreas Glindemann)
- Short reports on future of ground-based projects: LBT (Phil Hinz); LOA (David Buscher); Magdalena Ridge (Gary Loos); OHANA (Guy Perrin); 20/20 (Roger Angel)
- Guided optics (Jean-Philippe Berger)
- Nulling: an overview (Gene Serabyn)
- Alpha Ori imaging science (Bernd Freytag)
- Cepheid science with interferometry: a review (Dimitar Sasselov)
- Mira science with interferometry: a review (Michael Scholz) (tentative)
- Binary star science with interferometry: a review (Johannes Andersen)
- YSO science with interferometry: a review (Fabien Malbet)
- Ground-based interferometry: the decade past and the one to come (John Baldwin)
- Interferometry data-analysis centers: ISC (Interferometry Science Center) (Anneila Sargent); NEVEC (NOVA-ESO VLTi Expertise Center) (Rudolf LePoole); JMMC (Jean-Marie Mariotti Center for Interferometry) (Alain Chelli)
- A tribute to Jean-Marie Mariotti (Pierre Lena)

Panel Discussion

Hurdles not yet overcome: an irreverent, outspoken, positive, and entertaining audience-panel discussion.

Panelists: John Monnier (chair), Theo ten Brummelaar, Gene Serabyn, David Mozurkewich, Andreas Quirrenbach, Chris Haniff, Antoine Labeyrie, Christ Ftaclas, Vincent Foresto

Abstract Due Date: 28 January 2002
Manuscript Due Date: 29 July 2002

Submission of Abstracts for Astronomical Telescopes and Instrumentation symposium

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Manuscript Due Date: 29 July 2002

Submissions imply the intent of at least one author to register, attend the symposium, and present the paper (either orally or in poster format).

Your abstract must include all of the following:

1. **SUBMIT TO:** AS05, TRAUB
2. **SUBMIT EACH ABSTRACT TO ONE CONFERENCE ONLY** Interferometry for Optical Astronomy II (AS05)
3. **ABSTRACT TITLE**
4. **AUTHOR LISTING** (principal author first)
For each author: First (given) name (initials not acceptable), Last (family) name, Affiliation, Mailing address, Telephone, Fax, and Email address.
5. **PRESENTATION**
Indicate your preference for "Oral Presentation" or "Poster Presentation." Final placement is subject to chairs' discretion.
6. **BRIEF BIOGRAPHY** (principal/presenting author)
Approximately 50 words.
7. **ABSTRACT TEXT**
Approximately 250 words.
8. **KEYWORDS**
List a maximum of five keywords.

Conditions of Acceptance

- **Authors are expected to secure registration fees and travel and accommodation funding, independent of SPIE, through their sponsoring organizations before submitting abstracts.**
- Only original material should be submitted.
- Commercial papers, descriptions of papers with no research/development content, and papers where supporting data or a technical description cannot be given for proprietary reasons will not be accepted for presentation in this symposium.
- Abstracts should contain enough detail to clearly convey the approach and the results of the research.
- Government and company clearance to present and publish should be final at the time of submittal. Authors are required to warrant to SPIE in advance of publication of the Proceedings that all necessary permissions and clearances have been obtained, and that submitting authors are authorized to transfer copyright of the paper to SPIE .
- Applicants will be notified of acceptance by mail no later than 3 June 2002. Early notification of acceptance will be placed on the SPIE Web site the week of 29 April 2002 at www.spie.org/info/as

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Proceedings of SPIE

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